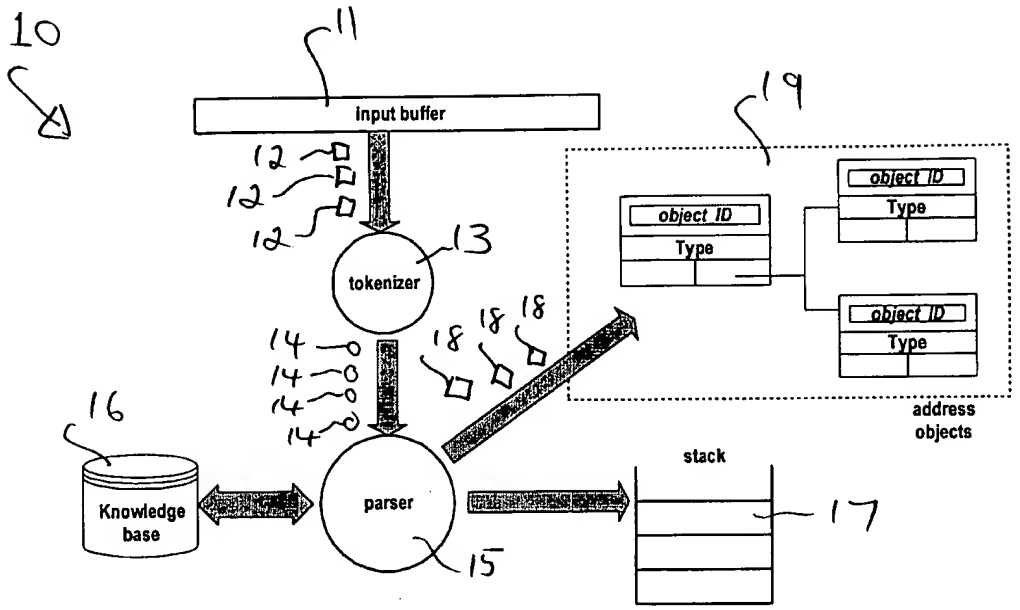

Figure 1. The conceptual parsing architecture.

Input buffer: the data structure that contains the character string to be parsed. We assume the characters are encoded by UNICODE.

FIG. 1

Document ID: US 20040205750 A1

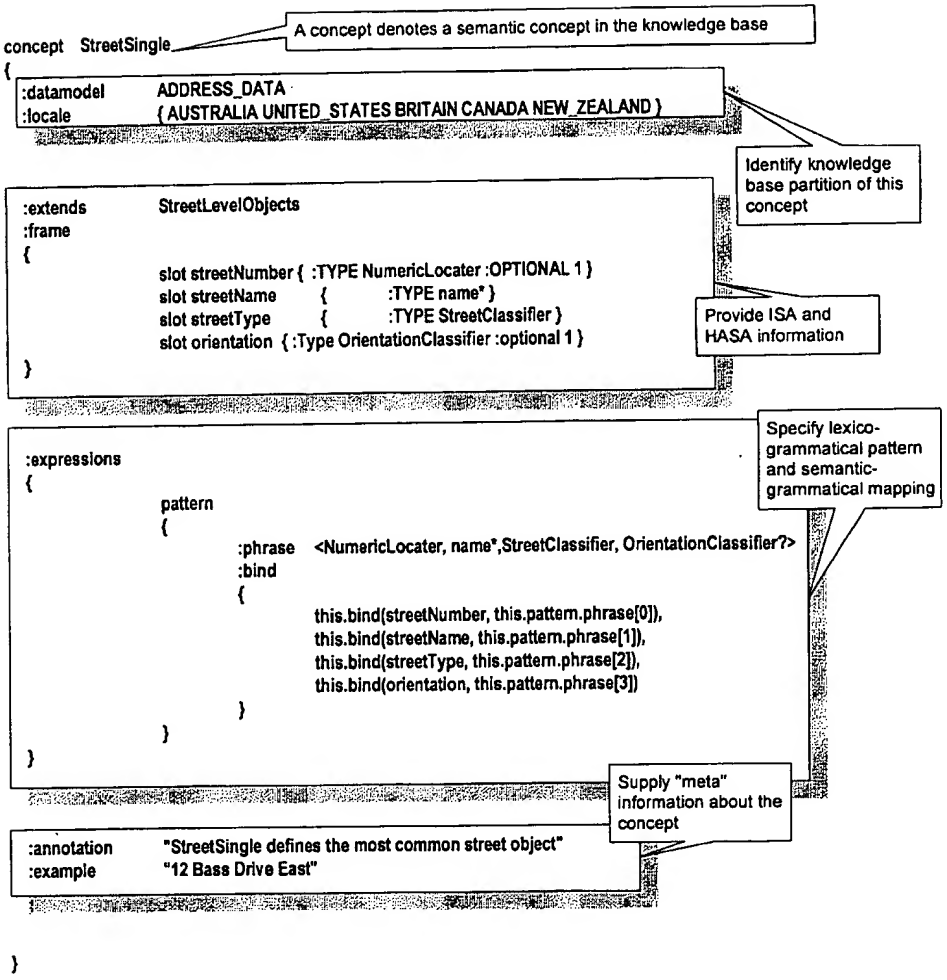

FIG. 2

0608-0054-0501

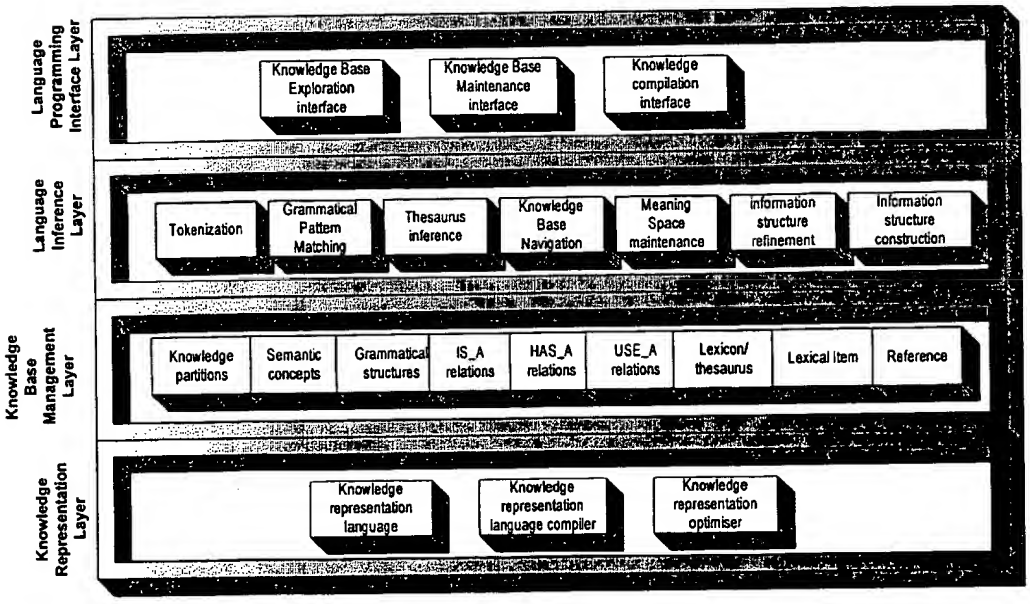

FIG. 3

EP 0 950 969 A2

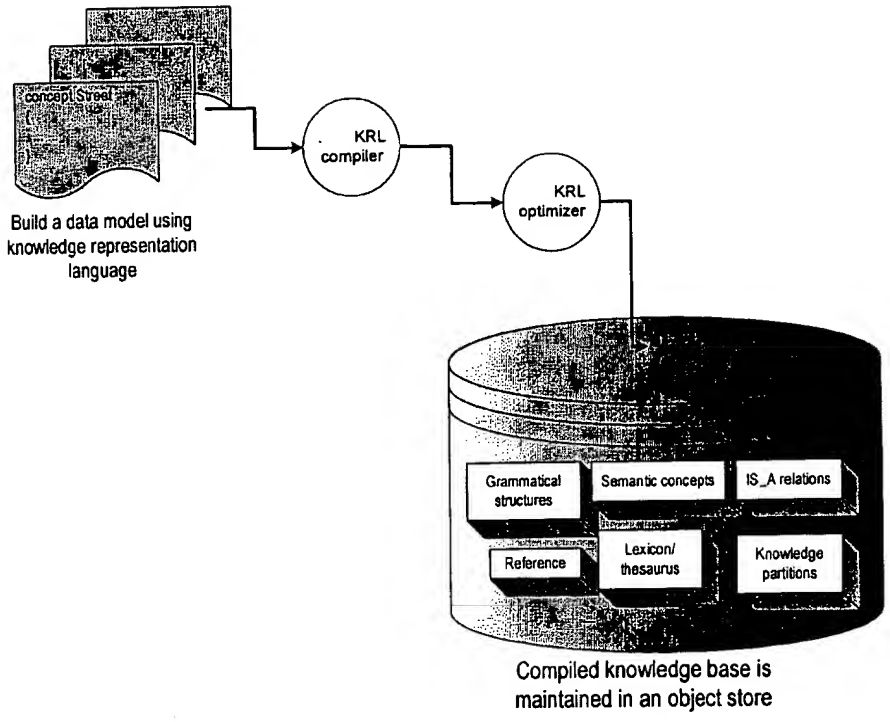

FIG. 4

Document ID: US 7,526,425 B2

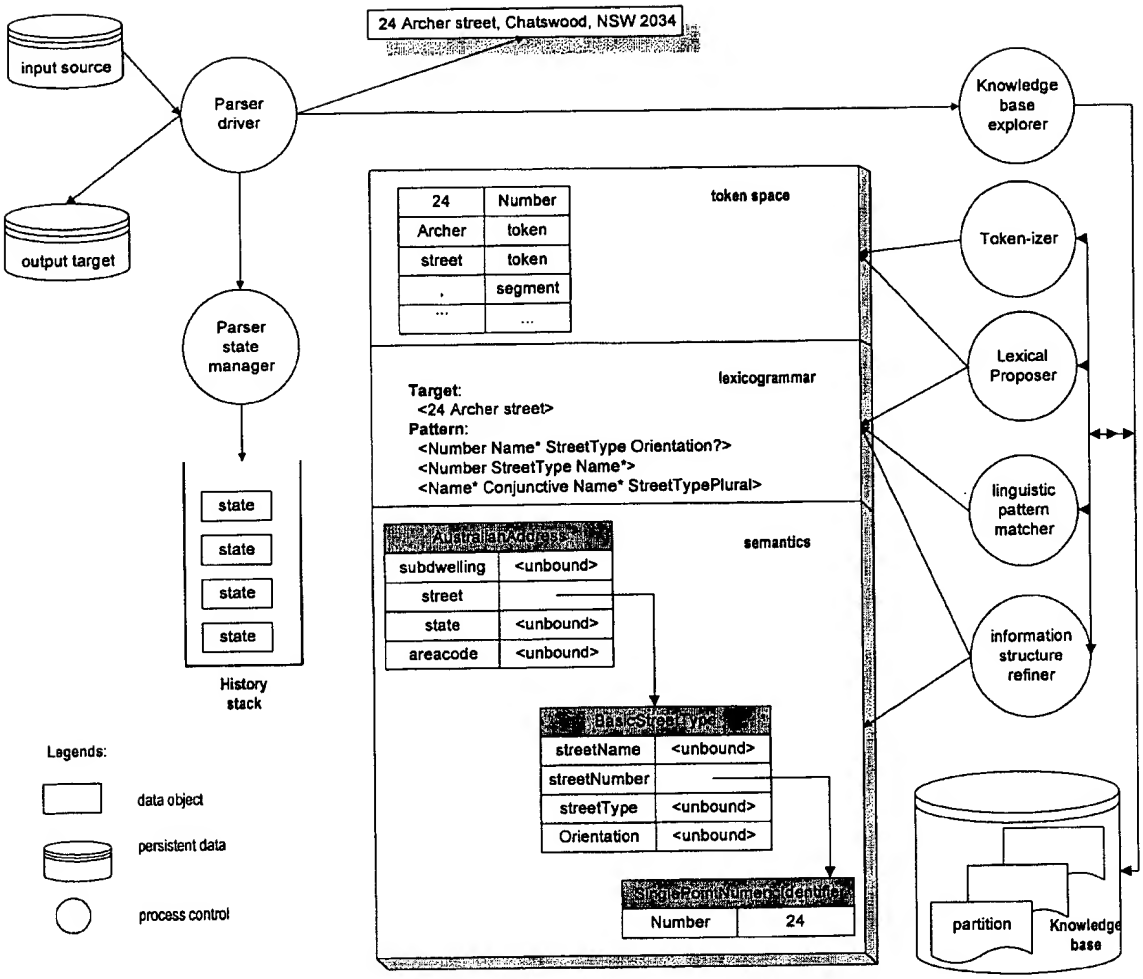
24 Archer street, Chatswood, NSW 2034
input source
Parser driver
output target
Parser state manager
state
state
state
state
History stack
Knowledge base explorer
token space
24 Number
Archer token
street token
, segment
... ...
Token-izer
Lexical Proposer
linguistic pattern matcher
information structure refiner
lexicogrammar
Target:
<24 Archer street>
Pattern:
<Number Name* StreetType Orientation?>
<Number StreetType Name*>
<Name* Conjunctive Name* StreetTypePlural>
semantics
AustralianAddress
subdwelling <unbound>
street
state <unbound>
areacode <unbound>
BasicStreetType
streetName <unbound>
streetNumber
streetType <unbound>
Orientation <unbound>
SingleDomNumber identifier
Number 24
partition
Knowledge base
Legends:
data object
persistent data
process control

FIG. 5

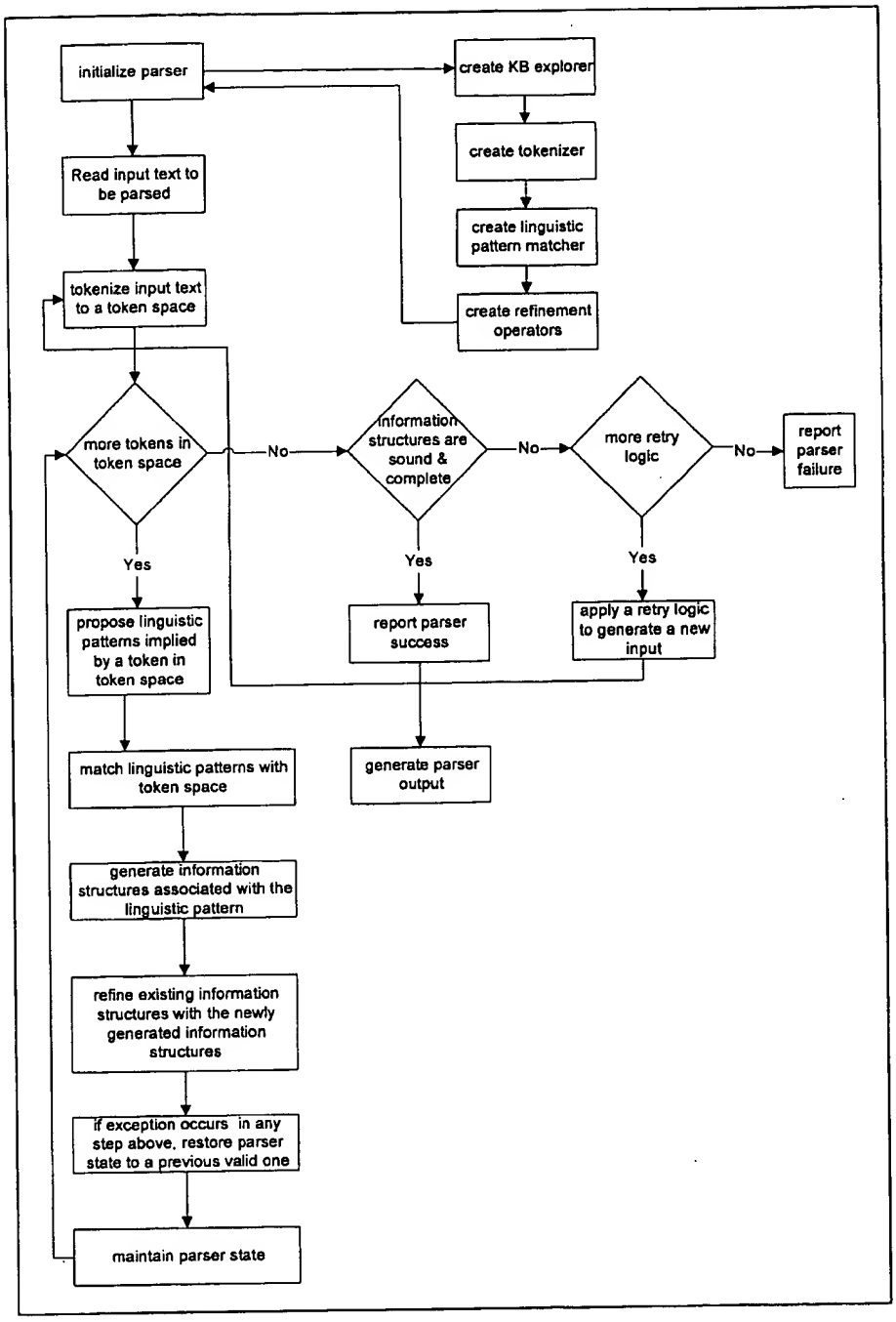

FIG. 6

5,708,825

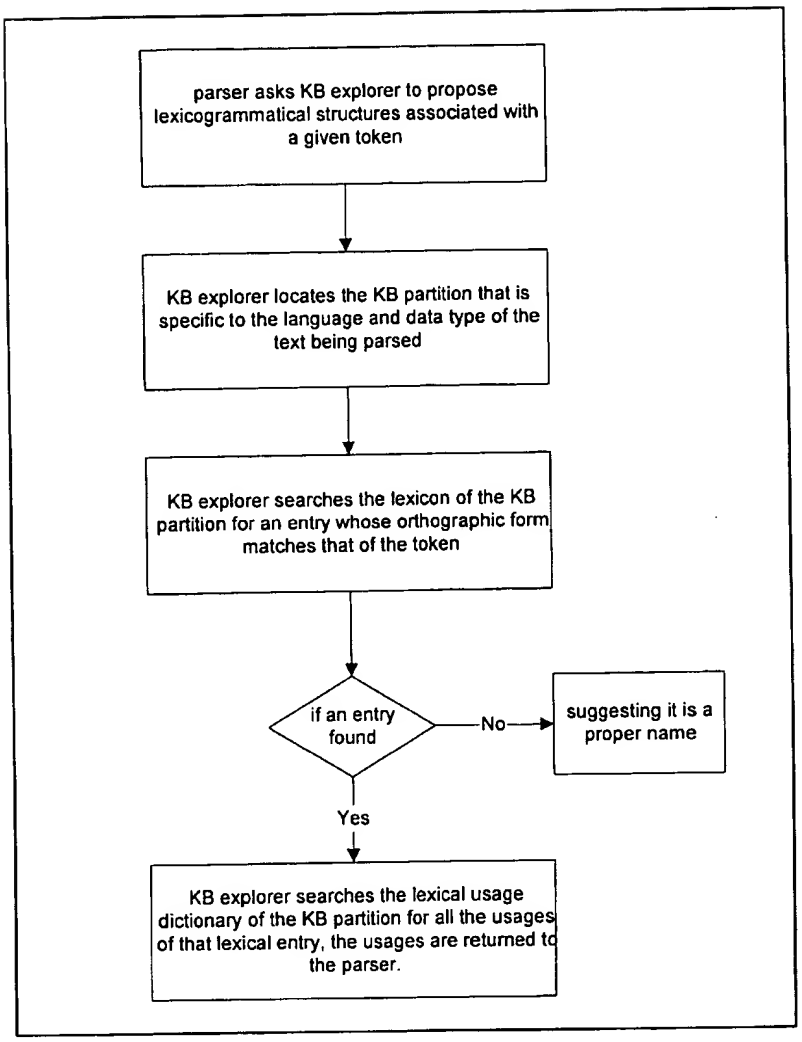

FIG. 7

Docket No. 50277-2000

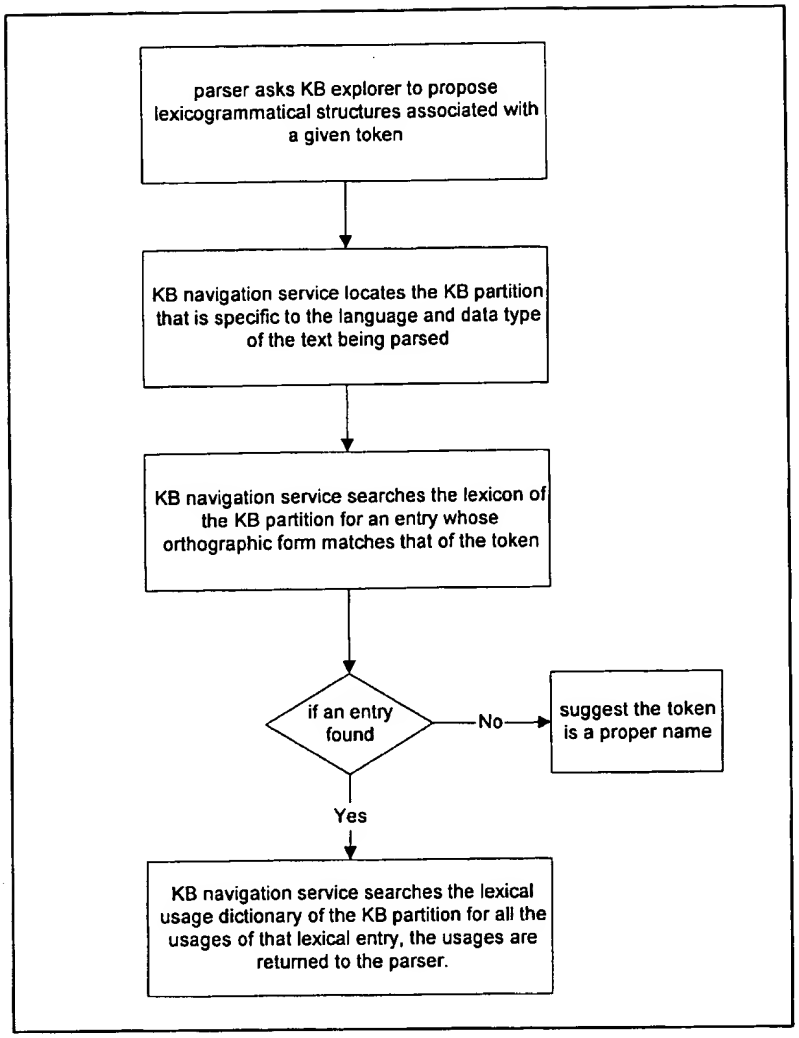

FIG. 8

US 8,903,794 B2

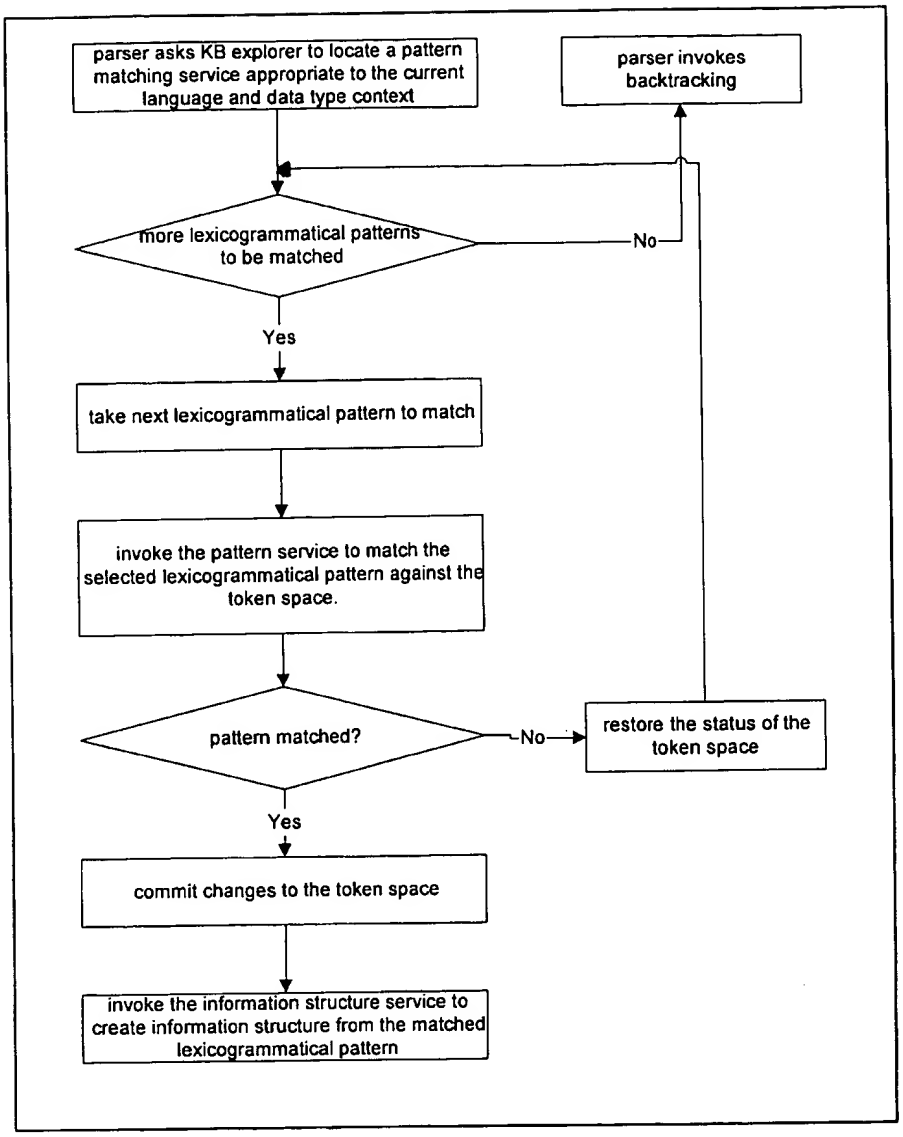

FIG. 9

Docket No. 50277-2410

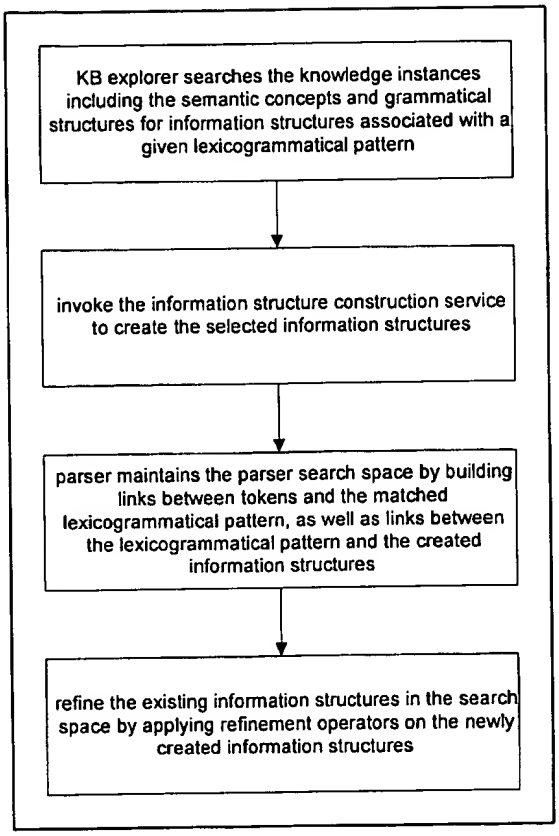

FIG. 10

Serial No. 09/895,354

Example addres: *unit 6, 22 Fontenoy road, ...*

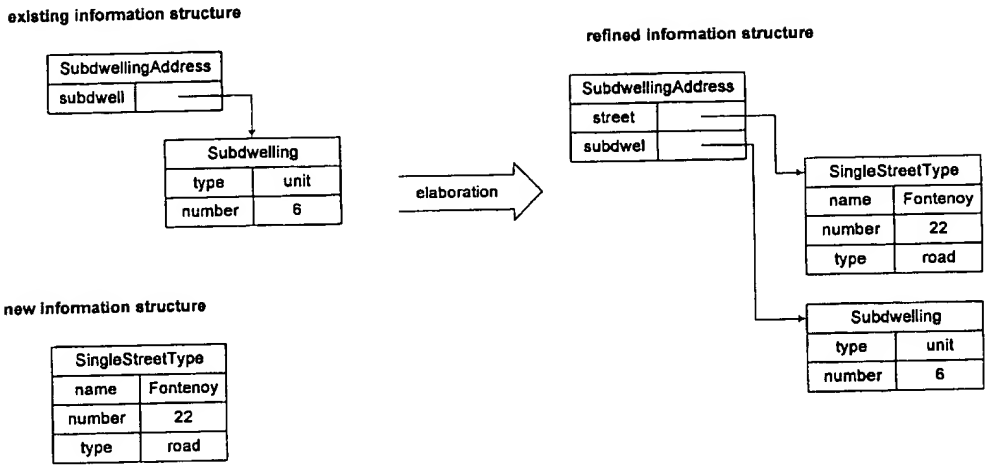

FIG. 11

WO 2004/053734 PCT/US2003/039260

Example addres: *Fontenoy road and Curzon street, ...*

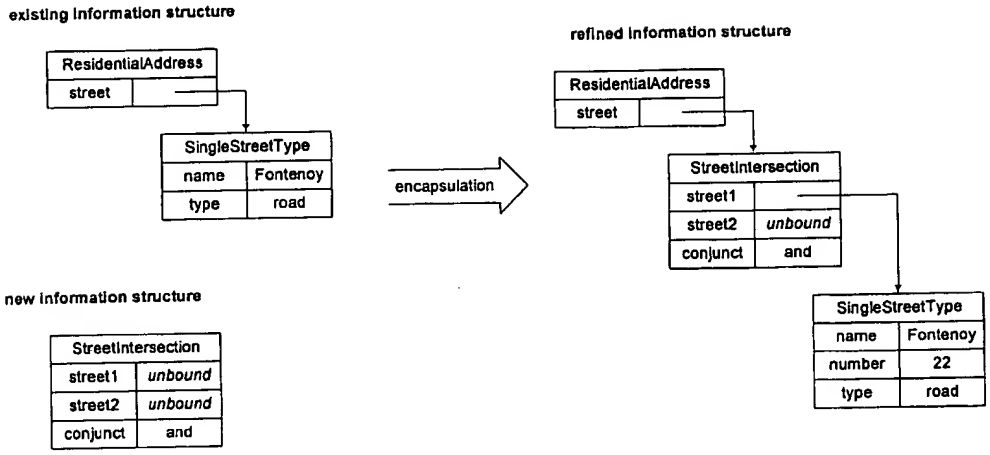

FIG. 12

EP 3 608 795 A1

Example addres: *22 Fontenoy road, Ryde, NSW 2113*

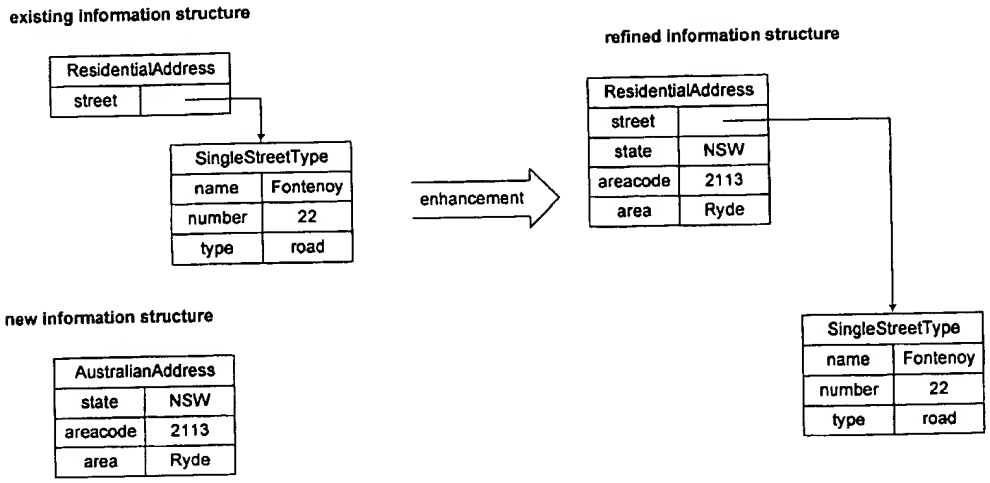

FIG. 13

SUBSTITUTE SHEET (RULE 26)

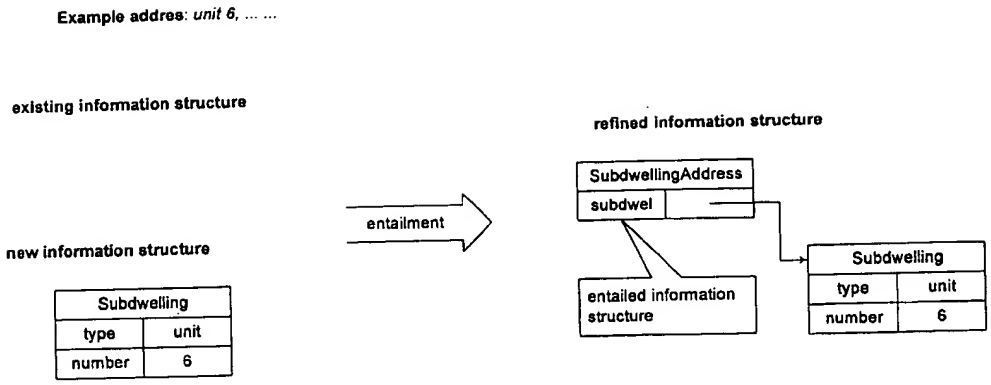

FIG. 14

US 8,868,548 B2

Example addres: *Dept. of computer science, school of engineering, Univ. of Sydney, ...*

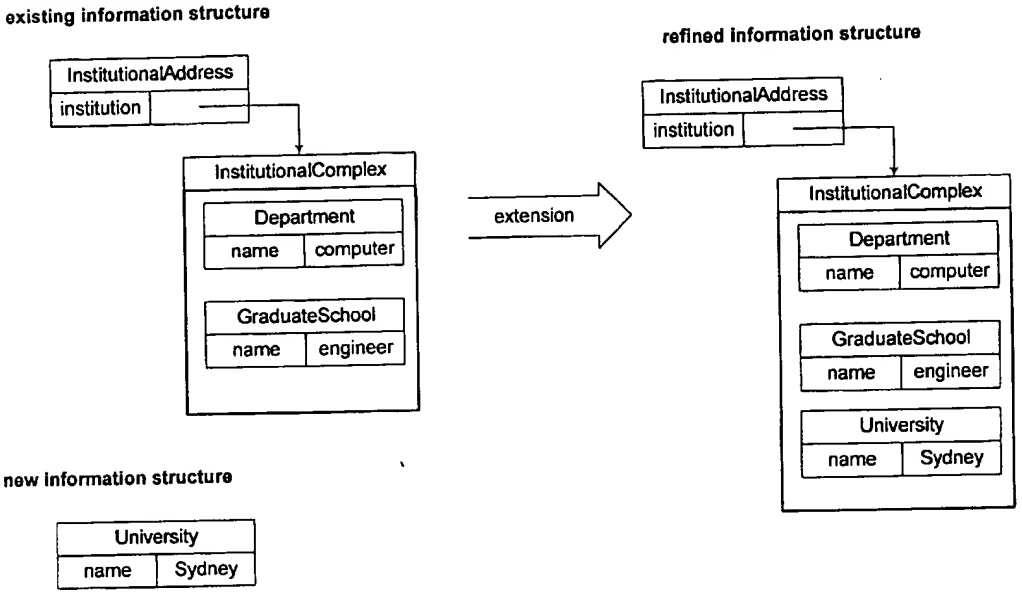

FIG. 15

Docket No. 50277-2050

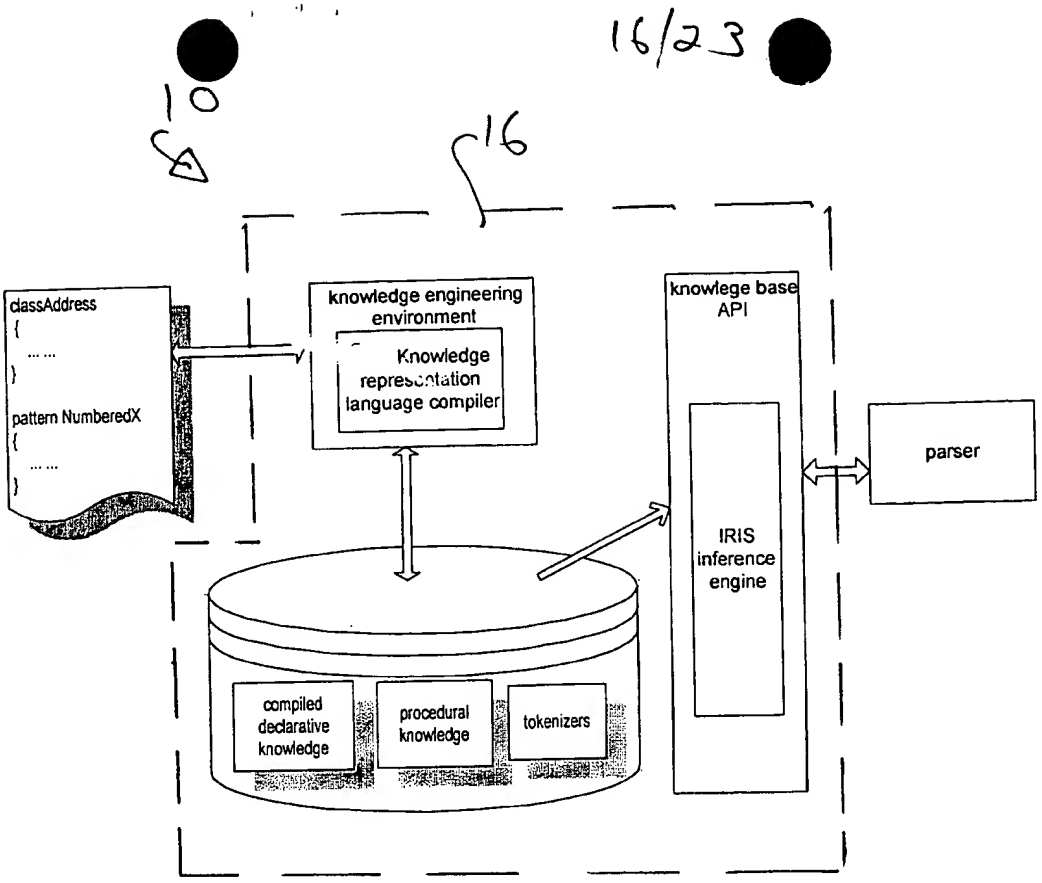

FIG. 16

09893503-060504

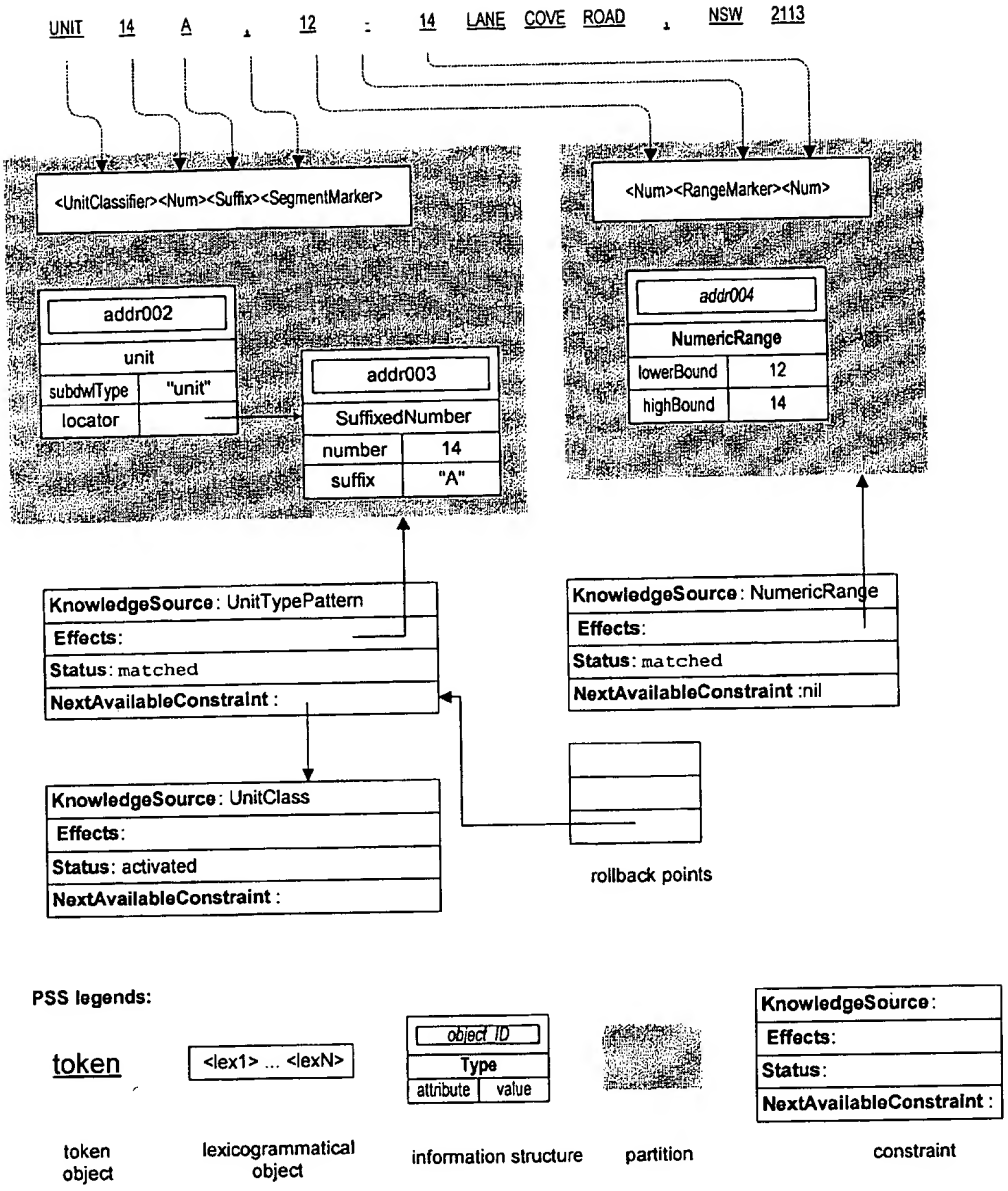
UNIT 14 A , 12 : 14 LANE COVE ROAD , NSW 2113
<UnitClassifier><Num><Suffix><SegmentMarker>
addr002
unit
subdwlType "unit"
locator
addr003
SuffixedNumber
number 14
suffix "A"
<Num><RangeMarker><Num>
addr004
NumericRange
lowerBound 12
highBound 14
KnowledgeSource: UnitTypePattern
Effects:
Status: matched
NextAvailableConstraint :
KnowledgeSource: NumericRange
Effects:
Status: matched
NextAvailableConstraint :nil
KnowledgeSource: UnitClass
Effects:
Status: activated
NextAvailableConstraint :
rollback points
PSS legends:
token
<lex1> ... <lexN>
object ID
Type
attribute value
KnowledgeSource:
Effects:
Status:
NextAvailableConstraint :
token object
lexicogrammatical object
information structure
partition
constraint

FIG. 17

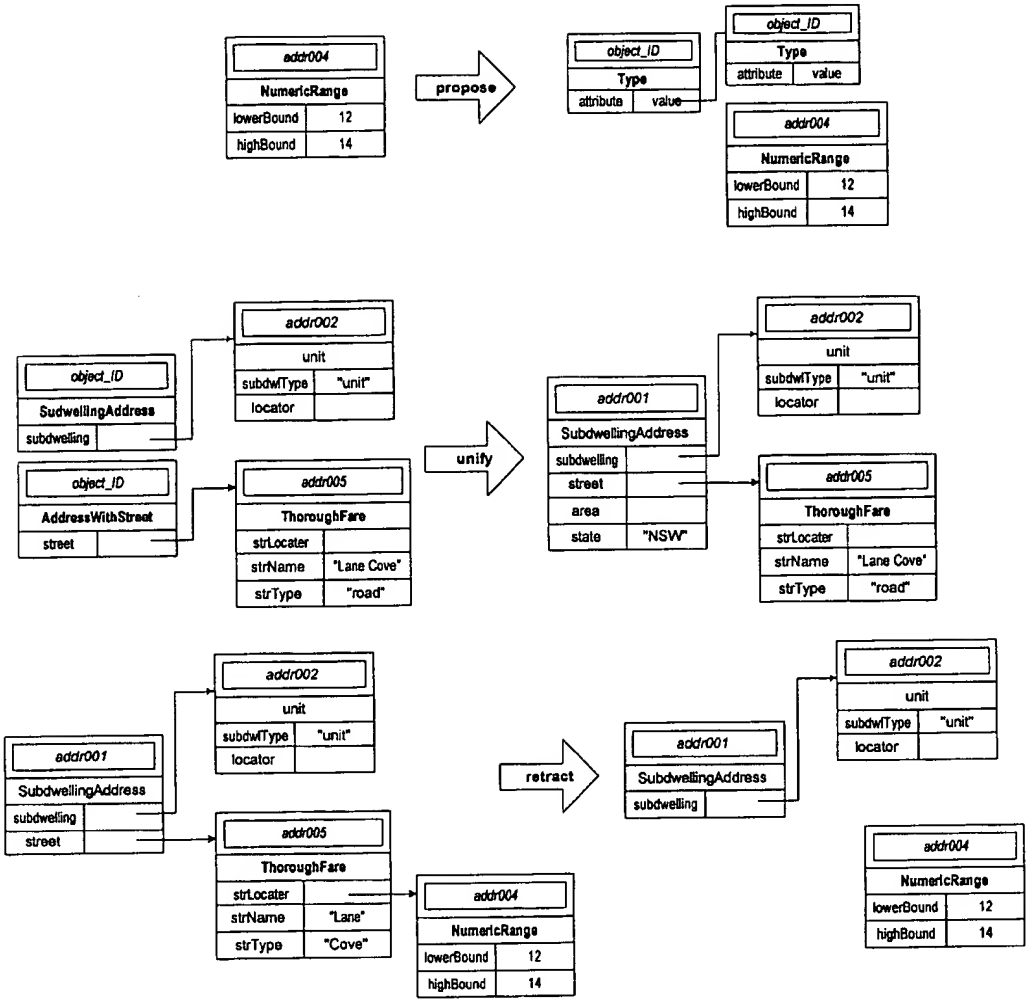

FIG. 18

09853503.060501

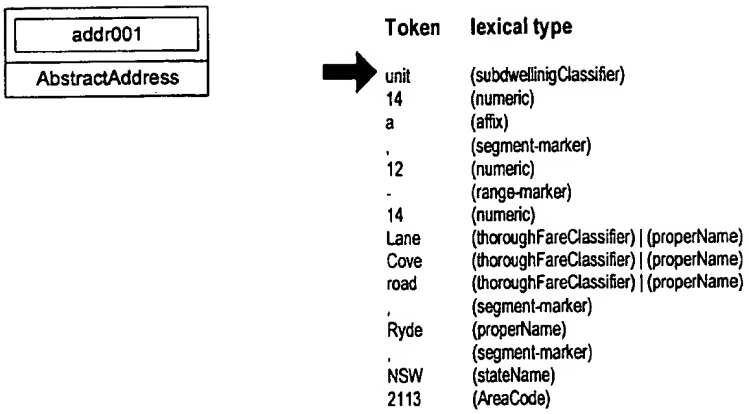

Figure 19.1 Initial state of parsing.

FIG. 19.1

09834503.060501

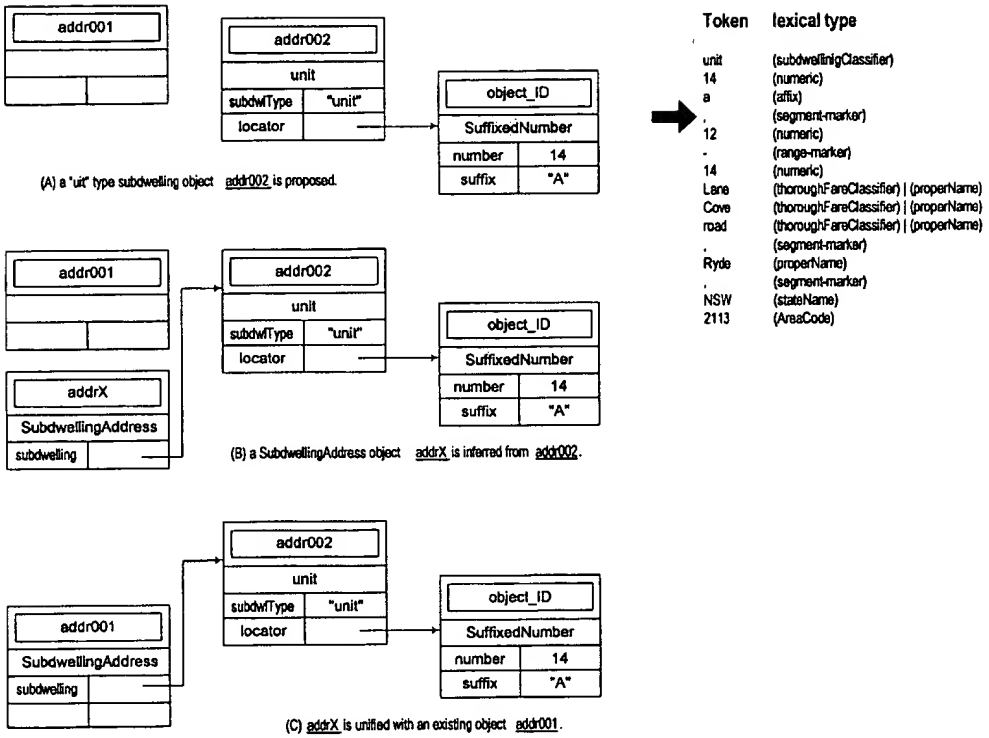

Figure 19.2. Address objects built after parsing "unit 14A".

FIG. 19.2

Patent Application Publication

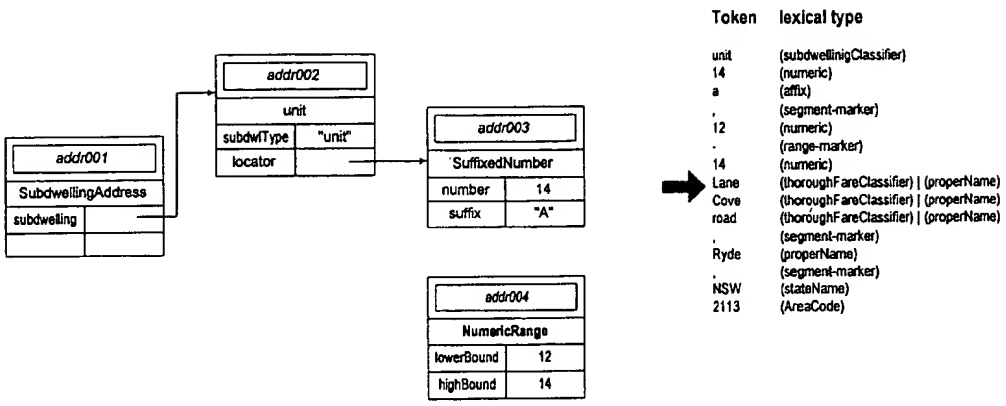

Figure 19.3. Temporary information structure held in stack.

FIG. 19.3

Page 0 of 0

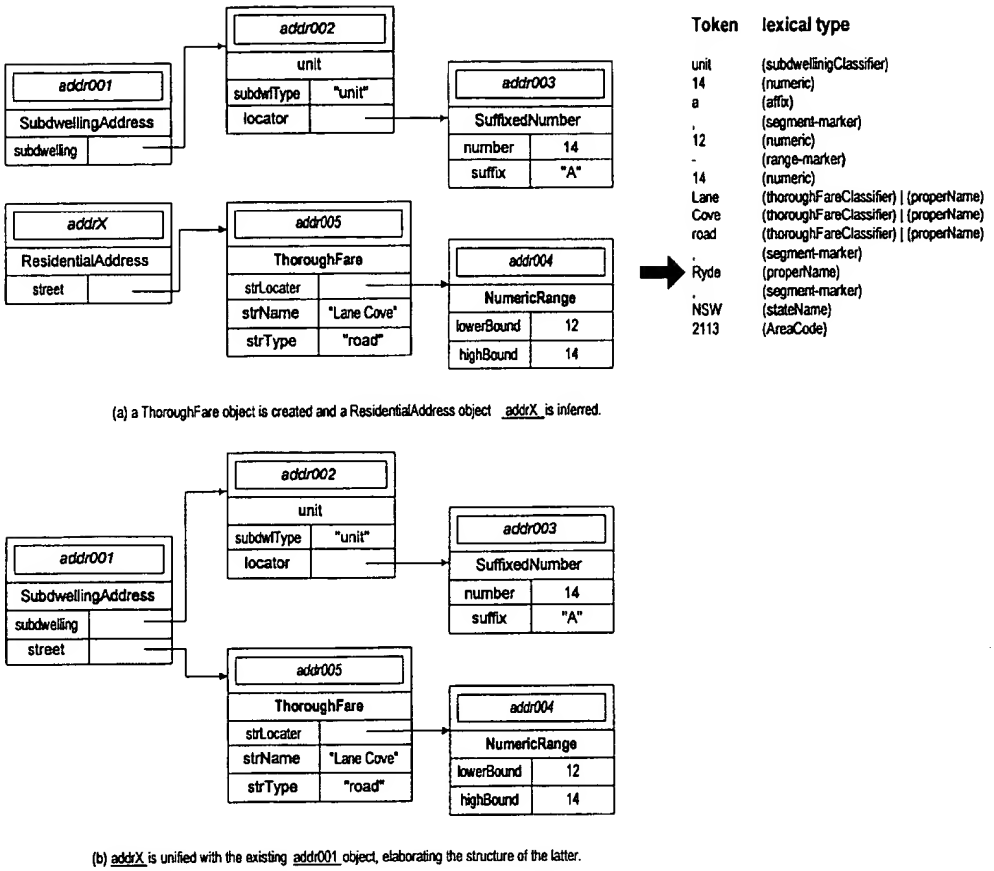

Figure 19.4. Information structure obtained after parsing "12-14 Lane Cove Road".

FIG. 19.4

Docket No. P05

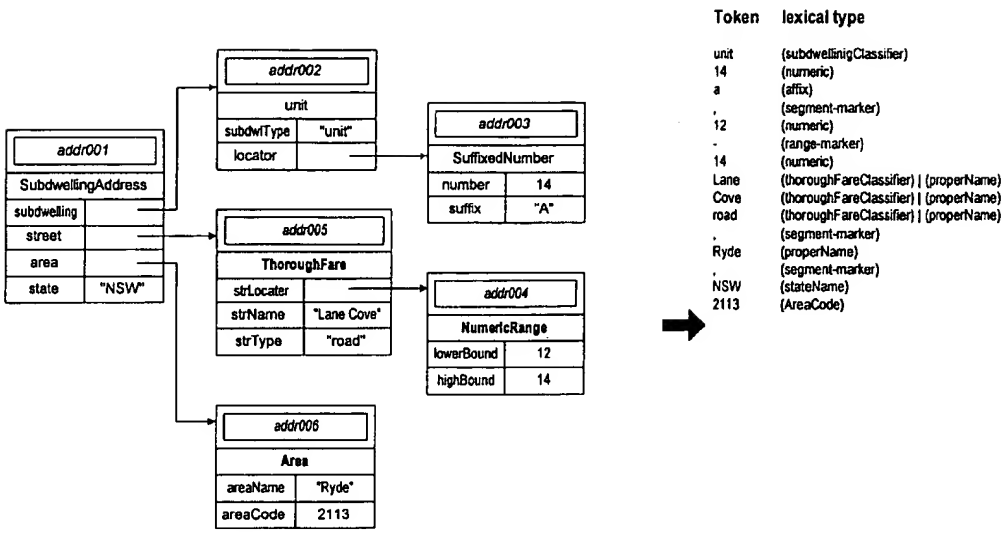

Figure 19.5. The final address information structure.

FIG. 19.5

Docket No: 50277-2000